

IN THE CLAIMS:

Please amend claims 1-12 as follows:

1. (Previously presented) Method to register the structural features in an acoustic conducting material, such as the sheet material of a pipe, a duct, container and the like, where instrumentation is permanently fitted on the surface of the material whereby acoustic signals are emitted from said instrumentation and received in/through the solid material, and also that changes in the received signals as a consequence of changes in the structure of the material are registered, wherein a sensor, or several sensors mutually spaced apart, is (are) arranged in contact with the surface of the material, and the sensor(s) emit/receive acoustic signals to provide information about occurrences of defects in the solid material, and also the position of such defects, characterised in that the sensor(s) measure(s) the presence and location of a structural change based on the wall thickness of the solid pipe material over a cross-section, by detecting changes in signal characteristics, such as frequency content and speed.
2. (Previously presented) Method according to claim 1, characterised in that one sensor measures the presence and location of a structural change by alternatively switching between active (emitting) and passive mode (receiving).
3. (Previously presented) Method according to claim 1, characterised in that the position of a defect is determined by carrying out a so-called cross-bearing, i.e., by collating distance and angle between a number of individual sensors and the defect.

4. (Currently amended) Method according to claims 1 ~~or 3~~, characterised in that each sensor communicates with a control unit that is formed by one of the sensors, a so-called master sensor, with the master sensor regulating the transmission and reception of acoustic signals by the sensors.
5. (Currently amended) Method according to ~~one of the claims 1-4~~, claim 1, characterised in that when the sensors emit and receive, respectively, acoustic signals with the same frequency, the signals are emitted with mutual time intervals.
6. (Currently amended) Method according to ~~one of the preceding claims~~, claim 1, characterised in that when the sensors emit and receive acoustic signals at different frequencies, the signals are emitted simultaneously or with mutual time intervals.
7. (Previously presented) Method according to claim 1, characterised in that one single sensor, the master sensor, is applied and the information about the material structure is provided by registering reflections from the structure changes/defects in the sheet material.
8. (Previously presented) System to register structural features in an acoustic conducting material, such as the sheet material of a pipe, a duct, container and the like, comprising instrumentation permanently fitted onto the surface of the material and which is arranged to emit and receive acoustic signals in/through the solid material and also to register changes in the received signals as a consequence of changes in the structure of the material, wherein the instrumentation comprises a sensor, or several sensors mutually spaced apart, in

contact with the surface of the material, and the sensor(s) is(are) arranged to emit and receive signals to provide information about occurrences of defects in the solid material, and also the position of such defects, characterised in that the sensor(s) are adapted to measure the presence and location of a structural change based on the wall thickness of the solid pipe material over a pipe cross-section, by detecting changes in signal characteristics, such as frequency content and speed.

9. (Previously presented) System according to claim 8, characterised in that when one sensor is used, said sensor is arranged to function as both sender and receiver, by alternatively switching between active (emitting) and passive mode (receiving).
10. (Previously presented) System according to claim 8, characterised in that
when one or more sensors are used, each individual sensor is arranged to communicate with a master sensor, and
that the master sensor is arranged to regulate the emission and reception, respectively, of acoustic signals by the sensors.
11. (Currently amended) System according to ~~one of the~~ claims 10, characterised in that each individual sensor is connected to the master sensor via cables.
12. (Currently amended) System according to claims 10–11, characterised in that the master sensor is arranged to control the time of emission of acoustic signals from each sensor, and also the used frequency characteristics.